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EXAMINER

HO, ALLEN C

ART UNIT PAPER NUMBER

2882

DATE MAILED: 08/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/091,254

Applicant(s)

TSUCHINO, HISANORI

Examiner

Allen C. Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

1. Fig. 2 is objected to because reference number "3.5" and "4.6" should be replaced by --3, 5-- and --4, 6--, respectively. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: RADIOGRAPHING APPARATUS INCLUDING A CONTROL SECTION FOR ESTABLISHING A STANDBY MODE IN A PLURALITY OF RADIOGRAPHING SECTIONS.

3. The disclosure is objected to because of the following informalities:

- (1) Page 21, line 12, "tension" should be replaced by --voltage--.
- (2) Page 21, line 13, "conversing" should be replaced by --conversion--.
- (3) Page 21, line 13, "converges" should be replaced by --converts--.
- (4) Page 22, line 10, "5" should be replaced by --105--.
- (5) Page 22, line 10, "tension" should be replaced by --voltage--.
- (6) Page 22, line 10, "converging" should be replaced by --conversion--.
- (7) Page 24, line 21, "2" should be replaced by --32--.

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- (8) Page 25, line 14, "radiographng" should be replaced by --radiographing--.
- (9) Page 26, line 13, "6a" should be replaced by --36a--.
- (10) Page 26, line 16, "6c" should be replaced by --36c--.
- (11) Page 26, line 17, "6a" should be replaced by --36a--.

Appropriate correction is required.

Claim Objections

- 4. Claim 2 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.
- 5. Claim 13 is objected to because of the following informalities: line 8, "section" should be replaced by --device--. Appropriate correction is required.
- 6. Claim 19 is objected to because of the following informalities: line 2, "section" should be replaced by --device--. Appropriate correction is required.
- 7. Claim 22 is objected to because of the following informalities: line 2, "mode" should be replaced by --device--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

- 8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 13, 16, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Khutoryansky *et al.* (U. S. Patent No. 5,572,567).

With regard to claim 13, Khutoryansky *et al.* disclosed a radiographic apparatus, comprising: a radiographic section (108, 109) to form an image corresponding to radiation received from a radiation irradiating section (205); a first operating device (700) connected to the radiographing section and to set a radiographing condition of the radiographing section; and a second operating device (800) to change the radiographing condition set by the first radiographing device.

With regard to claim 16, Khutoryansky *et al.* disclosed the radiographic apparatus of claim 13, wherein the second operating device comprises a communication member (column 6, lines 35-37) to communicate with the first operating device wirelessly (infrared) and to transfer information about the change of the radiographing condition.

With regard to claim 19, Khutoryansky *et al.* disclosed the radiographic apparatus of claim 13, wherein the second operating device has a higher priority to set the radiographing condition than the first operating device (inherent, since it could override the condition set by the first operating device).

10. Claims 13 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Tachi *et al.* (U. S. Patent No. 6,027,247).

With regard to claim 13, Tachi *et al.* disclosed a radiographing apparatus, comprising: a radiographing section (160) to form an image corresponding to radiation received from a radiation irradiation section (250); a first operating device (700) connected to the radiographing

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section and to set a radiographing condition of the radiographing section (column 8, line 67; column 9, lines 1-5); and a second operating device (500) to change the radiographing condition set by the first operating device (column 9, lines 5-15).

With regard to claim 19, Tachi *et al.* disclosed the radiographic apparatus of claim 13, wherein the second operating device has a higher priority to set the radiographing condition than the first operating device (inherent, since it could override the condition set by the first operating device).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-3 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lizuka (U. S. Patent No. 6,435,713 B1) in view of Strasser *et al.* (U. S. Patent No. 5,867,561).

With regard to claims 1, 2, and 10, Lizuka disclosed a radiographing apparatus, comprising: a control section (50); a plurality of radiographing sections (21, 31, 42), and a radiation irradiation section (22, 32, 41) connected to the control section.

However, Lizuka failed to teach that the control section establishes a standby mode in accordance with a situation that a non-used time period of each of the plurality of radiographing sections or the radiation irradiation section exceeds a predetermined time period.

Strasser *et al.* disclosed a control section (52, 70) that monitors the non-use time period of a radiographing section (10) (column 5, lines 63-67; column 6, line 1). When the non-use time period exceeds a predetermined time (T_1), the control section establishes a standby (sleep) mode in the radiographing section (column 6, lines 1-10). This standby mode is designed to reduce energy consumption.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ a control section that monitors the usage of each of the plurality of radiographing sections and the radiation irradiation section and puts a radiographing section or the radiation irradiation section in a standby mode when a non-use time period of the radiographing section exceeds a predetermined time period, since a person would be motivated to reduce unnecessary energy consumption.

With regard to claim 3, Lizuka in combination with Strasser *et al.* disclosed the radiographing apparatus of claim 1. However, Lizuka and Strasser *et al.* failed to teach that the control section determines the predetermined time for each of the plurality of radiographing sections in accordance with a used-frequency of each of the plurality of radiographing sections.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to program the control section to determine the predetermined time for each of the plurality of radiographing sections in accordance with a used-frequency of each of the plurality of radiographing sections. Since a radiographing section that has a high frequency of usage has a shorter wait period between uses and a radiographing section that has a low frequency of usage has a longer wait period between uses, a person would be motivated to set a predetermined time according to a used-frequency of the radiographing section.

With regard to claims 11 and 12, Lizuka in combination with Strasser *et al.* disclosed the radiographing apparatus of claim 10. However, Lizuka and Strasser *et al.* failed to teach that the control section cancels the standby mode for all of the radiographing section correlated with the radiation irradiating section.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to program the control section to cancel the standby mode for all of the radiographing section correlated with the radiation irradiating section, since a person would be motivated to prepare those correlated radiographing sections for imaging.

13. Claims 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lizuka (U. S. Patent No. 6,435,713 B1) and Strasser *et al.* (U. S. Patent No. 5,867,561) as applied to claim 1 above, and further in view of Adamski *et al.* (U. S. Patent No. 4,918,714).

With regard to claim 4, Lizuka in combination with Strasser *et al.* disclosed the radiographing apparatus of claim 1. However, Lizuka and Strasser *et al.* failed to teach that the control section establishes the standby mode for itself after the control section establishes the standby mode for all of the plurality of radiographing sections.

Adamski *et al.* disclosed a control section (40) that establishes the standby mode (wait state) for itself after it has accomplished all assigned tasks (column 7, lines 56-61).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to program the control section to establish the standby mode for itself after the control section establishes the standby mode for all of the plurality of radiographing sections, since a person would be motivated to save additional energy once all radiographing sections have been put in standby mode.

With regard to claim 5, Lizuka in combination with Strasser *et al.* disclosed the radiographing apparatus of claim 1. However, Lizuka and Strasser *et al.* failed to teach that the control section cancels the standby mode in accordance with a situation that the control section receives a radiographing order.

Adamski *et al.* disclosed a control section (40) that cancels the standby mode (wait state) when a signal is detected (column 7, lines 56-61).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to program the control section to cancel the standby mode in accordance with a situation that the control section receives a radiographing order, since a person would be motivated to program the control section to respond to a radiographing order.

With regard to claim 6, Lizuka in combination with Strasser *et al.* disclosed the radiographing apparatus of claim 1. However, Lizuka and Strasser *et al.* failed to teach that the radiographing apparatus further comprises a receiving section connected to a network, wherein the control section cancels the standby mode when the receiving section receives a radiographing order through the network.

Adamski *et al.* disclosed a control section (40) that cancels the standby mode (wait state) when a signal is detected (column 7, lines 56-61).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a receiving section connected to a network, wherein the control section cancels the standby mode when the receiving section receives a radiographing order through the network, since a person would be motivated to enlarge the customer base by

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providing a receiving section connected to a network and program the control section to respond to a radiographing order received from the network.

With regard to claim 7, Lizuka in combination with Strasser *et al.* disclosed the radiographing apparatus of claim 5. However, Lizuka and Strasser *et al.* failed to teach that the control section cancels the standby mode for the connected radiograph section.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to program the control section to cancel the standby mode for the connected radiograph section, since a person would be motivated to wake up the radiograph section in response to a radiographing order.

With regard to claim 8, Lizuka in combination with Strasser *et al.* disclosed the radiographing apparatus of claim 5. However, Lizuka and Strasser *et al.* failed to teach that the control section receives a radiographing order designating a specific radiographing section of the plurality of radiographing sections, the control section cancels the standby mode only for the specific radiographing section.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to program the control section to cancel the standby mode only for the specific radiograph section designated by a radiographing order, since a person would be motivated to keep the other radiograph sections in standby mode in order to minimize energy consumption.

With regard to claim 9, Lizuka in combination with Strasser *et al.* disclosed the radiographing apparatus of claim 1. However, Lizuka and Strasser *et al.* failed to teach under a condition that the control section establishes the standby mode for itself and all of the plurality of

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radiographing sections, when the control section is operated, the control section cancels the standby mode for itself and thereafter the control section selects one of the plurality of radiographing sections and cancels the standby mode for the selected radiographing section.

Adamski *et al.* disclosed a control section (40) that establishes the standby mode (wait state) for itself after it has accomplished all assigned tasks (column 7, lines 56-61). Furthermore, Adamski *et al.* taught that the control section (40) cancels the standby mode (wait state) when a signal is detected (column 7, lines 56-61).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to program the control section to establish the standby mode for itself and all of the plurality of radiographing sections, since a person would be motivated to reduce energy consumption when all the tasks have been completed. Furthermore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to program the control section to select one of the plurality of radiographing sections and cancels the standby mode for the selected radiographing section when the control section is operated, since a person would be motivated to prepare the selected radiographing sections for new orders when the control section is awakened.

14. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tachi *et al.* (U. S. Patent No. 6,027,247) as applied to claim 13 above, and further in view of Aufrichtig *et al.* (U. S. Patent No. 6,359,961 B1).

With regard to claim 14, Tachi *et al.* disclosed the radiographing apparatus of claim 13. However, Tachi *et al.* failed to teach that the radiographing section is connected to the first operating device through a network.

Aufrichtig *et al.* taught connecting a radiographing section (10) to a remote user (1022) through a network.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to connect the radiographing section to the first operating device through a network, since a person would be motivated to provide a communication link between the radiographing section and the first operating device so that they could interact with each other. Furthermore, a network is very flexible since it has the capacity to accommodate additional components.

15. Claims 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tachi *et al.* (U. S. Patent No. 6,027,247) as applied to claim 13 above, and further in view of Haumann *et al.* (U. S. Patent No. 6,285,742 B1).

With regard to claim 15, Tachi *et al.* disclosed the radiographing apparatus of claim 13. However, Tachi *et al.* failed to teach that the second operating device is detachably mounted on the radiographing section.

Haumann *et al.* disclosed an operating device (17) detachably mounted on a radiographing section.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a second operating device detachably mounted on the radiographing section, since a person would be motivated to provide an operating device that could be detached from the radiographing section and carried by a technician and allows the technician to set radiographing conditions as he or she moves around the patient.

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16. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tachi *et al.* (U. S. Patent No. 6,027,247) as applied to claim 13 above, and further in view of Khutoryansky *et al.* (U. S. Patent No. 5,572,567).

With regard to claim 16, Tachi *et al.* disclosed the radiographing apparatus of claim 13. However, Tachi *et al.* failed to teach that the second operating device comprises a communication member to communicate with the first operating device wirelessly and to transfer information about the change of the radiographing condition.

Khutoryansky *et al.* disclosed a second operating device (800) that comprises a communication member (inherent) to communicate with a first operating device (700) wirelessly (column 6, lines 35-37).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a wireless second operating device that communicates with a first operating device, since a person would be motivated to provide a mobile operating device to a technician that would allow the technician to set radiographing conditions as he or she moves around the patient. Furthermore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to enable the wireless second operating device to transfer information about the change of the radiographing condition to the first operating device, since a person would be motivated to update the radiographing condition on the first operating device so that the two operating devices are completely synchronized.

17. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tachi *et al.* (U. S. Patent No. 6,027,247) as applied to claim 13 above.

With regard to claims 17 and 18, Tachi *et al.* disclosed the radiographing apparatus of claim 13. However, Tachi *et al.* failed to teach that the second operating device comprises a display member to display information about the radiographing condition set by the first operating device, and vice versa.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a first operating device and a second operating device, each of which comprises a display member to display information about the radiographing condition changed by the other device, since a person would be motivated to provide a display that immediately informs the user using the device of the new radiographing condition.

18. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tachi *et al.* (U. S. Patent No. 6,027,247) as applied to claim 13 above.

With regard to claim 20, Tachi *et al.* disclosed the radiographing apparatus of claim 13. However, Tachi *et al.* failed to teach that when a change of the radiographing condition which cannot be performed by the second operating device is operated, the second operating device comprises a display member to display an indication to show information that the change cannot be performed by the second operating device.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a second operating device that comprises a display member to display an indication to show information that the change cannot be performed by the second operating device, since a person would be motivated to provide a feedback to the user when the user tries to perform a forbidden operation with the radiographing section.

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19. Claim 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tachi *et al.* (U. S. Patent No. 6,027,247) as applied to claim 13 above, and further in view of Strasser *et al.* (U. S. Patent No. 5,867,561).

With regard to claim 21, Tachi *et al.* disclosed the radiographing apparatus of claim 13. However, Tachi *et al.* failed to teach that the radiographing apparatus has a standby mode established in a case that the radiographing apparatus is not used for a predetermined time period, and the second operating device cancels the standby mode by an operation for the second operating device.

Strasser *et al.* disclosed a control section (52, 70) that monitors the non-use time period of a radiographing section (10) (column 5, lines 63-67; column 6, line 1). When the non-use time period exceeds a predetermined time (T_1), the control section establishes a standby (sleep) mode in the radiographing section (column 6, lines 1-10). This standby mode is designed to reduce energy consumption.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to establish a standby mode when the radiographing apparatus has not been used for a predetermined time period, since a person would be motivated to reduce energy consumption. Furthermore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the second operating device to cancel the standby mode, since a person would be motivated to operate the radiographing apparatus by using the second operating device.

With regard to claim 22, Tachi *et al.* in combination with Strasser *et al.* disclosed the radiographing apparatus of claim 21, wherein the second operating device comprises a display

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member (546) to display information that the standby mode is established (inherent, since the display member displays a photographing state).

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- (1) Tsuchino *et al.* (U. S. Patent No. 6,370,229 B1) disclosed a radiation image reading system and method.
- (2) Khutoryansky *et al.* (U. S. Patent No. 5,636,259) disclosed a universal radiographic/fluoroscopic digital room.
- (3) Katsumata (U. S. Patent No. 5,018,178) disclosed a medical apparatus with a control console.
- (4) Cecil *et al.* (U. S. Patent No. 4,991,193) disclosed a system safety monitor for CT scanners.
- (5) Brehm *et al.* (U. S. Patent No. 4,080,536) disclosed an x-ray diagnostic arrangement with several radiological exposure systems.
- (6) Lutz *et al.* (U. S. Patent No. 4,037,107) disclosed an x-ray diagnosing apparatus with several photographic systems selectively connected to a common generator.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen C. Ho whose telephone number is (703) 308-6189. The examiner can normally be reached on Monday - Friday from 8:00 am - 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward J. Glick can be reached at (703) 308-4858. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0530.

ACH

August 7, 2003

A handwritten signature in black ink that reads "Allen C. Ho". The signature is written in a cursive, flowing style.

Allen C. Ho
Patent Examiner
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